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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,774	12/12/2003	Douglas Heintzman	AUS920030915US1	1889
46240 7590 02/23/2007 IBM CORPORATION (WMA) C/O WILLIAMS, MORGAN & AMERSON, P.C. 10333 RICHMOND, SUITE 1100 HOUSTON, TX 77042			EXAMINER LEE, PING	
			ART UNIT 2615	PAPER NUMBER

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/23/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/734,774

Applicant(s)

HEINTZMAN ET AL.

Examiner

Ping Lee

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-35 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-35 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 12/12/03.
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 29-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 29 recites the limitation "the data indicative of acoustic conditions" in line 3 and "the audio presentation device" in lines 3-4. There are insufficient antecedent basis for these limitations in the claim.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1, 3-6, 11-13, 15-20, 24-26 and 28-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Rader et al (hereafter Rader) (US 6,944,474).

Regarding claims 1, 11 and 25, Rader discloses a method and a corresponding apparatus comprising:

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receiving data indicative of acoustic conditions proximate to an audio presentation device (mobile phone) (102 in Fig. 1);

receiving data associated with at least one audio profile (100 or 101); and

determining acoustic data to be provided based on at least a portion of the received data indicative of acoustic conditions proximate to the audio presentation device and at least a portion of the data associated with the at least one audio profile (105).

Regarding claim 3, Rader shows that receiving the data indicative of acoustic conditions proximate to the audio presentation device comprises receiving the data from at least one acoustic detector deployed proximate to the audio presentation device (col. 2, lines 63-64).

Regarding claims 4-6, Rader shows that receiving the data indicative of acoustic concision proximate to the audio presentation device comprises providing an acoustic test signal (col. 3, lines 10-14).

Regarding claims 12, 13, 15-20, 24, 26, 28-32, Rader shows, in Fig. 3, 4 or 5, determining the acoustic data comprises:

determining the acoustic data using a processor-based device located remotely from the audio presentation device; and

providing the acoustic data from the processor-based device to the audio presentation device.

5. Claims 1-6, 10, 11, 13-20 and 24-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Lemelson et al (hereafter Lemelson) (US 7,110,951).

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Regarding claims 1 and 25, Lemelson discloses a method and a corresponding apparatus, comprising:

receiving data indicative of acoustic conditions proximate to an audio presentation device (TV) (24 in Fig. 2);

receiving data associated with at least one audio profile (26); and

determining acoustic data to be provided based on at least a portion of the received data indicative of acoustic conditions proximate to the audio presentation device and at least a portion of the data associated with the at least one audio profile (14).

Regarding claim 2, Lemelson shows that determining the acoustic data comprises determining a close caption corresponding to an acoustic signal (Fig. 9).

Regarding claim 3, Lemelson shows that receiving the data indicative of acoustic conditions proximate to the audio presentation device comprises receiving the data from at least one acoustic detector deployed proximate to the audio presentation device (Fig. 8).

Regarding claims 4-6, Lemelson shows that receiving the data indicative of acoustic conditions proximate to the audio presentation device comprises providing an acoustic test signal (26).

Regarding claim 10 and 11, Lemelson shows that determining that a new user is using the audio presentation device, and wherein receiving the audio profile comprises receiving the audio profile in response to determining that the new use is using the audio presentation device (132 in fig. 10).

Regarding claims 13-20, the claimed interface reads on element 16 or 34 in Fig. 2, or the interface on CPU 14.

Regarding claims 24 and 26-32, Lemelson discloses the local storage for storing hearing information of the listener.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

8. Claims 7-9, 21-23 and 33-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lemelson in view of Hotvet (US 5,550,923).

Regarding claims 7-9, Lemelson teaches how to use adaptive filter to obtain the optimal filter coefficient to cancel noise and enhance the speech; however, it fails to clearly discuss the signal-to-noise ratio. Hotvet teaches how to use the SNR to


determine the optimal hearing. Thus, it would have been obvious to one of ordinary skill in the art to modify Lemelson in view of Hotvet by utilizing the SNR in combination with the adaptive filter in order to enhance the speech intelligibility.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ping Lee whose telephone number is 571-272-7522.

The examiner can normally be reached on Monday, Wednesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian C. Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Ping Lee  
Primary Examiner  
Art Unit 2615

pwl